

AMENDMENTS TO THE SPECIFICATION

On page 19, please replace the paragraph starting at line 32 with the following paragraph:

In some embodiments, the modeling environment 110 includes a knowledge base 350 that aids construction of a model. In some of these embodiments, the knowledge base 350 contains models for various reactions, e.g. glycolysis. In these embodiments, when a user begins to input reactions consistent with a model for glycolysis, the knowledge base 350 may enter the remaining reactions for the user. Alternatively, the knowledge base 350 may offer different models of the reaction to the user. In some of these embodiments, the offered models represent the target reaction with varying levels of detail. In other embodiments, the knowledge base 350 may insert parameters or indications of reversibility for entered reactions. The knowledge base 350 may also provide assistance to a user inputting a block diagram representation of a chemical or biochemical reaction. For example, the knowledge base 350 may prevent a user manufactured by connecting blocks inconsistent with the modeled reaction. Examples of publicly-available databases that may be used to facilitate generation of models include the Swissprot database (<http://us.expasy.org/sprot>), National Center for Biotechnology Information (NCBI) database (<http://www.ncbi.nlm.nih.gov>), the Protein Data Bank (<http://www.resb.org/pdb>), and Kyoto Encyclopedia of Genes and Genomes (KEGG) (<http://www.genome.ad.jp/kegg/kegg2.html>). Alternatively, the user may provide private databases to act as a knowledge base 350 for facilitating creation of models.